

Claims:

- 5 1. A blade tensioner for applying tension to a chain, the blade tensioner comprising:
 a base having a sliding face;
 a blade shoe having a first face and an opposing second face, the first face having a chain sliding face against which the chain is slidable, a first blade shoe portion pivotably supported by the base, and a second blade shoe portion freely slidable on the base sliding face;
10 a plurality of blade springs disposed on the second face of the blade shoe for applying a biasing force to the blade shoe; and
 a friction surface disposed between the second
15 blade shoe portion and the sliding face of the base providing a coefficient of friction therebetween effective to damp vibrations of the tensioner.
- 20 2. A blade tensioner according to Claim 1, wherein the friction surface is attached to the second portion of the blade shoe by means of bonding, welding, or coating.
- 25 3. A blade tensioner according to Claim 1, wherein the friction surface is inserted into the second portion of the blade shoe.
- 30 4. A blade tensioner according to Claim 2, wherein the friction surface is configured using rubber, plastic, or friction paper.
- 35 5. A blade tensioner according to Claim 1, wherein the friction surface is attached to the sliding face of the base by means of bonding, welding, or coating.

6. A blade tensioner according to Claim 5, wherein the friction surface is configured using rubber, plastic, or friction paper.

5 7. A blade tensioner according to Claim 1, wherein the sliding face comprises a sliding block attached to the base.

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10 8. A blade tensioner according to Claim 7, wherein the friction surface is disposed on the sliding block.

9. A blade tensioner for applying tension to a chain, the blade tensioner comprising:

15 a base having a sliding face;

a blade shoe having a first face and an opposing second face, the first face having a chain sliding surface against which the chain is slidable, the blade shoe having a first portion pivotably mounted to the base and a second portion freely slidable against the base sliding face, the
20 second portion and the first portion having slots;

a plurality of blade springs disposed on the second face of the blade shoe, the blade springs having respective edge parts insertable into the slots of the
25 first portion and the second portion of the blade shoe in order to apply a biasing force to the blade shoe; and

a friction surface provided between at least one of the slots of the blade shoe and at least one of the blade springs to provide sliding resistance therebetween
30 effective to damp vibrations of the tensioner.

10. A blade tensioner according to Claim 9, wherein the friction surface is attached to the slot by means of bonding, welding, or coating.

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11. A blade tensioner according to Claim 9, wherein the friction surface is inserted into the slot of the blade shoe.

12. A blade tensioner according to Claim 11, wherein the friction surface is configured using rubber, plastic, or friction paper.

13. A method of applying tension to a chain with a blade tensioner, the method comprising:

providing a base having a sliding surface formed thereon;

pivotably attaching a first portion of a blade shoe to the base, the blade shoe having a chain sliding face and an opposing face opposite the chain sliding face, the blade shoe having a second portion slidable upon the base sliding surface;

biasing the blade shoe against the chain with at least one blade spring disposed on the opposing face of the blade shoe;

damping vibrations of the tensioner with a friction surface provided between the second portion of the shoe and the base sliding surface providing a coefficient of friction therebetween.

14. The method of applying tension to a chain according to Claim 13, including mounting the friction surface to the base sliding surface.

15. The method of applying tension to a chain according to Claim 13, including mounting the friction surface to the second portion of the shoe.

16. A method of applying tension to a chain with a blade tensioner, the method comprising:

providing a base having a sliding surface formed thereon;

5 pivotably attaching a first portion of a blade shoe to the base, the blade shoe having a second portion slidable upon the base sliding surface, the blade shoe having a chain sliding face and an opposing face opposite the chain sliding face having slots at the first and second portions;

10 biasing the blade shoe against the chain with at least one blade spring disposed on the opposing face of the blade shoe in the slots; and

damping vibrations of the tensioner with a friction surface provided between blade spring and the slot providing a coefficient of friction therebetween.

15 17. A method of applying tension to a chain according to Claim 16, including mounting the friction surface to ends of the blade spring where the blade spring contacts the slots.

20 18. A method of applying tension to a chain according to Claim 16, including mounting the friction surface to the slots of the shoe where the blade spring contacts the slots.

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